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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/204,734	12/03/1998	GREGORY E. BOTTOMLEY	8194-205	5861

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EXAMINER

FAN, CHIEH M

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 04/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/204,734

Applicant(s)

BOTTOMLEY, GREGORY E.

Examiner

Chieh M Fan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9,12,13,15-20,23,24,26-31 and 34-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,12,13,15-20,23,24,26-31,34-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 1998 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to the latest amendment filed on 1/24/02. In this amendment, the applicant indicated that claim 17 has been rewritten in independent form by incorporating the recitations of the originally filed claim 12. However, the applicant actually amended claim 16 into an independent form. Please correct such inconsistency in the next communication.

Drawings

1. In the latest amendment the applicant indicated that a new set of formal drawing was being filed with the amendment. However, the examiner cannot find any formal drawings filed with the amendment. The drawings objection in the last Office Action is thus maintained.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 2, 4-9, 12, 13, 15-20, 23, 24, 26-31, 34-39 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the

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specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The independent claims of the instant application either recite "scaling the traffic despread values and/or the pilot despread values by the scaled factors" (claims 1, 12, 23) or "scaling at least one of the traffic despread values, the channel estimates and the pilot despread values by the scaled factors" (claims 6, 16, 28, 34, 36, 38). These limitations imply that more than one of the traffic despread values, the channel estimates and the pilot despread values may be scaled. However, according to the description in the specification in lines 26-31 of page 8, it appears that only one of the traffic despread values, the channel estimates and the pilot despread values is scaled. Therefore, the claims of the instant application clearly contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1, 2, 4, 5, 7-9, 12, 13, 15, 16, 18-20, 23, 24, 26, 27 and 29-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Bruckert et al. (US Patent 5,812,542).

Regarding claims 1, 12 and 23, Bruckert et al. ("Bruckert" hereinafter) discloses a method for processing spread spectrum signals from a plurality of traffic channels and a plurality of pilot channels and a plurality of pilot channels, comprising the steps of:

receiving data samples from the plurality of traffic channels and the plurality of pilot channels (see 108 and 148 in Fig. 1);

correlating the received data samples to spreading codes to produce pilot despread values and the traffic despread values (see 252 through 255 in Fig. 2);

forming scale factors corresponding to the relative strengths of the plurality of traffic channels and the plurality of pilot channels (see col. 9, line 65);

estimating channel response using the pilot despread values to produce channel coefficient estimates (see col. 3, lines 28-38);

combining the traffic despread values to obtain detection statistics that correspond to information symbols, using the channel coefficient estimates (see col. 3, lines 28-38; also see 130, 158 and 138 in Fig. 1; also see 263 in Fig. 2); and

scaling at least one of the traffic despread values, the channel estimates and the pilot despread values by the scale factors so as to obtain detection statistics that correspond to the relative strengths of the plurality of traffic channels and the plurality of pilot channels (see col. 9, lines 41-54, col. 10, lines 33-43; also see col. 11, lines 5-16).

Regarding claims 4, 15 and 26, see the mathematical expressions in col. 9, lines 42-53 and col. 10, lines 33-43). For example, the pilot signal P_1 is scaled by Y_{104} .

Regarding claims 5, 16 and 27, see col. 9, line 65 in Bruckert.

Regarding claims 7, 18 and 29, the plurality of traffic channels and the plurality of pilot channels correspond to a plurality of delays of a transmitted signal (see col. 3, lines 39-42, also see 166, 168, 170, 132, 134, 136 and 160, 162 and 164 in Fig. 1).

Regarding claims 8, 19 and 30, see col. 3, lines 25-28 and col. 4, lines 61-65 of Bruckert.

Regarding claims 9, 20 and 31, see the last line of col. 9 in Bruckert.

Claim Rejections - 35 USC § 103

6. Claims 2, 13 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruckert et al. as applied to claims 1, 12 and 23 above.

As described above, Bruckert teaches all the claimed invention except the step of scaling the traffic despread values. However, the multiplication of a scaled channel response with a traffic despread value is equivalent to the multiplication of a channel response with a scaled traffic despread value since the order of multiplying a scalar (a constant) may be interchangeable. That is, $A*B*C$ is clearly equivalent to $B*C*A$, wherein A is a scaling factor. Therefore, the step of scaling the channel coefficient estimates or the step of scaling the pilot despread values taught by Bruckert is considered functionally equivalent to the step of scaling the traffic despread values.

Response to Arguments

7. Applicant's arguments filed 1/24/02 have been fully considered but they are not persuasive.

The applicant argues that Bruckert et al. does not suggest scaling the traffic despread values and/or the pilot despread values by the scaled factors. In response to the argument, as pointed out by the examiner in the last Office Action, Bruckert et al. clearly teaches scaling the pilot despread values (see mathematical expressions in col. 9, lines 42-53 and col. 10, lines 33-43. For example, the pilot signal P_1 is scaled by Y_{104} .) Further, the applicant never respond to the examiner's comment that Bruckert et al. also teach the step of scaling the traffic despread values in Paragraph 8 of the last Office Action.

Conclusion

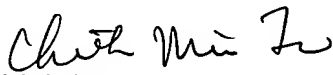
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chieh M Fan whose telephone number is (703) 305-0198. The examiner can normally be reached on Monday-Friday 8:00AM-5:30PM, Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (703) 305-4714. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.


Chieh M Fan
Examiner
Art Unit 2634

cmf
April 15, 2002